

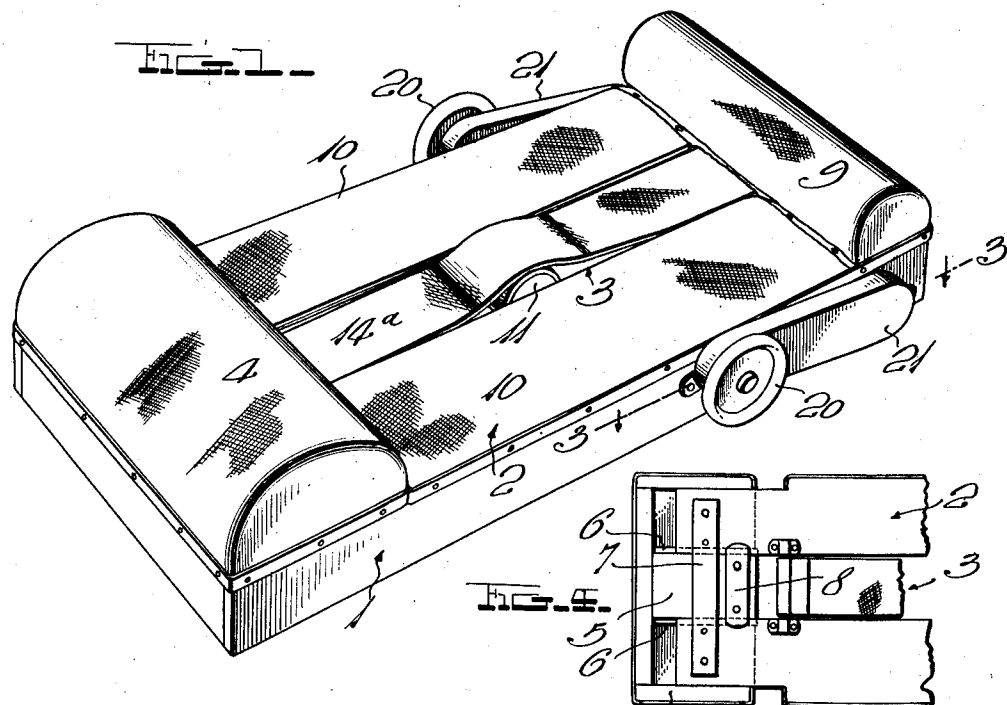
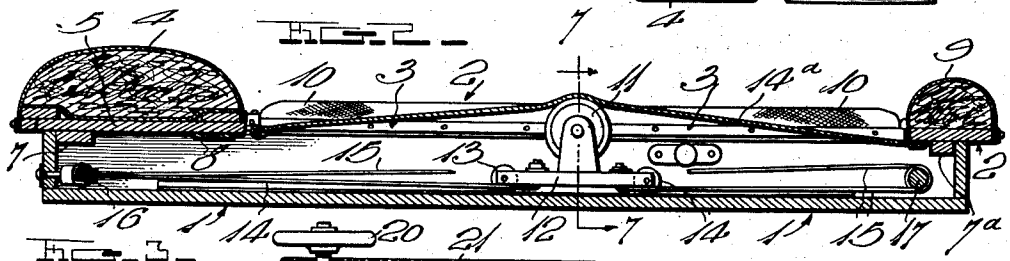
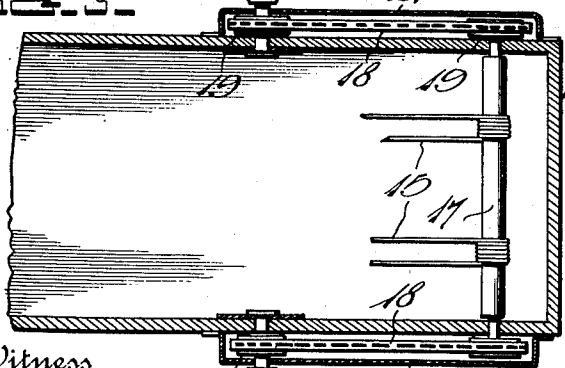
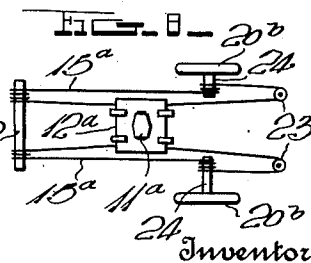
June 8, 1926.

1,587,737

W. H. TRUMBULL
SPINE TREATING DEVICE

Filed July 9, 1925

2 Sheets-Sheet 1



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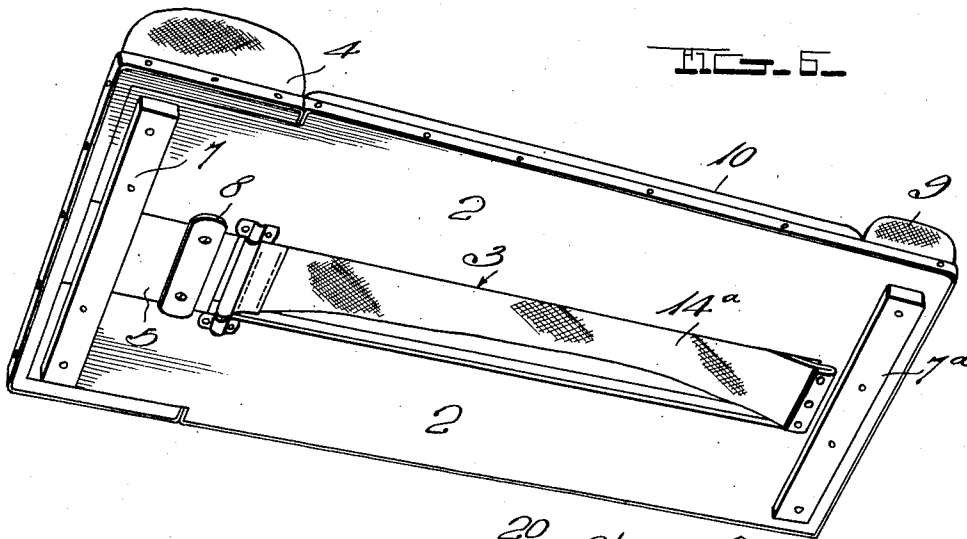
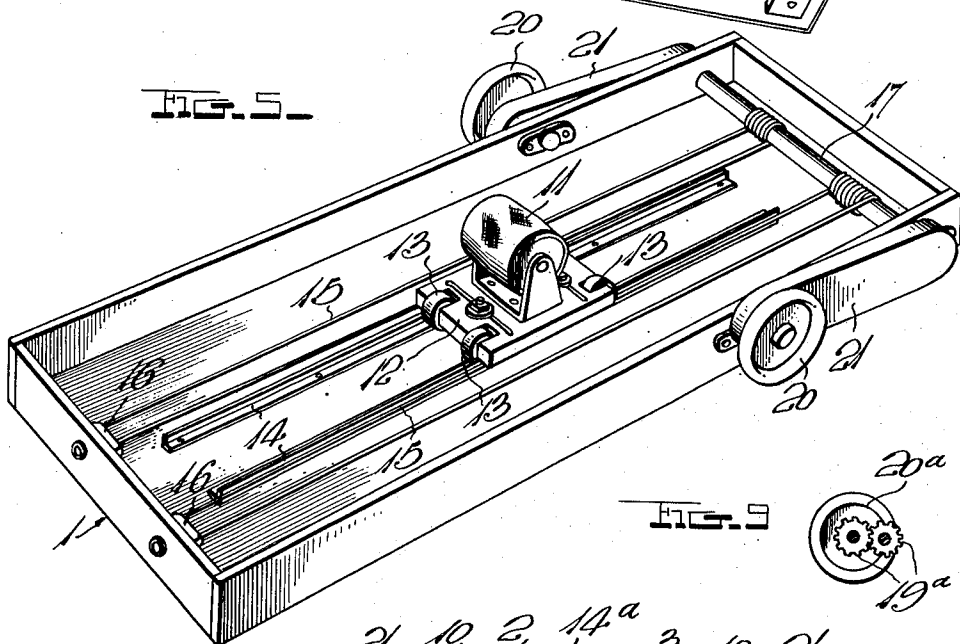
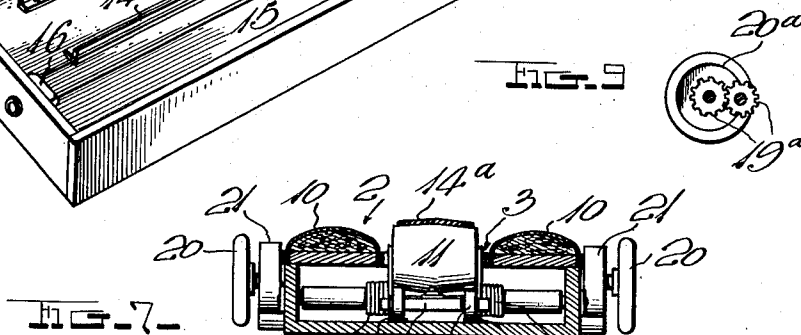
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Patented June 8, 1926.

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UNITED STATES PATENT OFFICE.

WILLIS H. TRUMBULL, OF LOTHAIR, MONTANA.

SPINE-TREATING DEVICE.

Application filed July 9, 1925. Serial No. 42,506.

My invention aims to provide a novel device upon which a person may lie and provided with unique means for engaging the rearwardly projecting portions of the spinal
vertebrae in such a manner as to independently move them upon their connecting joints, thus relieving any abnormal conditions which may exist and generally promoting health and vigor.

With the foregoing in view, the invention resides in the novel subject matter hereinafter described and claimed, the description being supplemented by the accompanying drawings.

Figure 1 is a perspective view of a device constructed in accordance with my invention.

Figure 2 is a central vertical longitudinal sectional view.

Figure 3 is a detail horizontal sectional view taken substantially on the plane indicated by line 3—3 of Fig. 1.

Figure 4 is a fragmentary bottom plan view of a portion of the device showing more particularly the mounting of the adjustable head rest.

Figure 5 is a perspective view of the major portion of the device from which the top portion has been removed.

Figure 6 is a perspective view of the top portion referred to in describing Fig. 5.

Figure 7 is a vertical transverse sectional view as indicated by line 7—7 of Fig. 2.

Figure 8 is a diagram showing a different arrangement of parts for moving the spine treating roller longitudinally of the spine.

Figure 9 is a diagram illustrating a different driving means for the roller-operating means.

In the drawings above briefly described, the numeral 1 designates an elongated, shallow casing, said casing being provided with a removable top 2 having a longitudinal slot 3 along its central portion. This slot preferably opens through one end of the top 2, and resting slidably upon this end, is an appropriate headrest 4 having a longitudinally disposed tongue 5 which is slidably received in the adjacent portion of the slot 3 and if desired may be provided with longitudinal ribs 6 on its edges, engaging corresponding grooves in the edges of the slot. A transverse strip 7 is secured to the lower side of the top 2 and slidably underlies the outer end portion of the tongue 5, and a second

portion of said tongue, the ends of this strip 8 slidably underlying the top 2. This construction is most clearly shown in Figs. 4 and 6 and it will be seen that it constitutes a simple and effective means for adjustably connecting the head rest 4 with one end portion of the top 2. The opposite end portion of this top is preferably provided with a transverse pad 9 to engage the thighs of the person using the device, and between the pad 9 and head rest 4, the top is equipped with longitudinal pads 10 disposed at opposite sides of the slot 3.

I have stated that the top 2 is detachable. This top preferably rests removably upon the upper edges of the side and end walls of the casing body, and the strip 7, above described, is received within one end of this body to hold the top 2 against shifting thereon. A similar strip 7^a is preferably provided at the opposite end of the top, for reception in the other end of the casing body, and it will be seen that by making this provision, the top 2 is held against shifting in any direction, except vertically, from the lower or body portion of the casing 1. However, whenever desired, the top may be readily removed.

Adapted for movement longitudinally of the slot 3, is a spine treating roller 11 which is convex in a direction transverse to said slot. This roller 11 is rotatably supported upon a carriage 12 within the casing 1. This carriage may be of any desired construction, but it is preferably provided with rollers 13 to travel along the bottom of the casing, which bottom may well be provided with light, angle metal tracks 14 for said rollers.

Provision is made for longitudinally moving the carriage 12, so that the roller 11 will engage the vertebrae of the spine to rock them in an advantageous manner, with respect to each other, the rocking of each vertebra being effected on an axis transverse to the spine. In most instances, I prefer to provide a flexible strap 14^a over the roller 11 and having its ends suitably secured to the top 2, but in all instances, this strap need not be used.

In most figures of the drawings, cables 15 are secured to the carriage 12 and are trained around swivel pulleys 16 at one end of the casing 1, said cables being wrapped several times around a transverse shaft or drum 17 at the opposite end of the casing.

This drum may be rotated in either direction, by any preferred means. In most of the views, it is driven by sprocket chains 18 and sprockets 19, from a pair of hand wheels 20 mounted at opposite sides of the casing 1 within easy reach of a person lying upon the device. The sprockets and sprocket chains are preferably encased by appropriate casings 21. If desired, instead of using the sprockets and sprocket chains, intermeshing gears 19^a may be employed for transmitting motion from hand wheels 20^a, to the shaft or drum 17, as diagrammatically indicated in Fig. 9. Moreover, the exact means shown for reciprocating the carriage 12 need not be used. For instance, the arrangement diagrammatically shown in Fig. 8 may be employed. In this figure, 12^a designates the carriage carrying the spine treating roller 11^a and connected to cables 15^a which are wound around an equalizing shaft or drum 22, located at one end of the casing 1, said cables being passed around pulleys 23 at the opposite end of the casing. Two drums 24 are engaged with proper reaches of the cables 15^a and are provided with hand wheels 20^b.

By any of the arrangements shown, or by any other desired means, the carriage may be reciprocated at any speed which the patient may desire, and the spinal column will be effectively treated by the roller 11, so that any abnormal conditions which may exist, will be rectified, and the general health and vigor of the patient will be greatly improved. As excellent results may be obtained from the general construction disclosed, it may be followed if desired. However, within the scope of the invention as claimed, numerous modifications may be made.

I claim:

1. A spine treating device comprising an elongated body support upon which the patient lies, said support having a longitudinal slot and being adapted to engage the patient's back at opposite sides of the spine, a spine treating roller whose upper portion is received in said slot, said roller being of convex formation in a direction transverse to said slot, means mounting said roller for movement longitudinally of the slot, and means for effecting such movement of the roller.

2. A spine treating device comprising a shallow elongated casing provided with a

top having a central longitudinal slot and longitudinal body supports at opposite sides of said slot, a carriage mounted for longitudinal reciprocation in said casing under said slot, means for reciprocating said carriage, and a spine treating roller mounted on said carriage with its upper portion projecting through said slot.

3. A spine treating device comprising a shallow elongated casing provided with a top having a central longitudinal slot and longitudinal body supports at opposite sides of said slot, a carriage mounted for longitudinal reciprocation in said casing under said slot, means for reciprocating said carriage including hand wheels at the sides of the casing to be rotated by the patient, and a spine treating roller mounted on said carriage with its upper portion projecting through said slot.

4. A spine treating device comprising a shallow elongated casing provided with a top having a central longitudinal slot and longitudinal body supports at opposite sides of said slot, a carriage within the casing having supporting rollers engaging the casing bottom, drum and cable means connected to the carriage for reciprocating it longitudinally of the casing, and a spine treating roller mounted on the carriage with its upper portion projecting through the slot.

5. A structure as specified in claim 4; said drum and cable means having operating wheels at the sides of the casing to be rotated by the patient.

6. A structure as specified in claim 1; together with a flexible strap lying on said roller and having its ends anchored at the ends of said slot.

7. In a spine treating device comprising a shallow elongated casing provided with a top having a longitudinal slot which opens through one of its ends, and spine treating means in said slot; a head rest resting slidably on said one end of the top and having a longitudinally disposed tongue received slidably in one end portion of said slot, a transverse strip secured to said one end of said top and slidably underlying the outer end portion of said tongue, and a second transverse strip secured to the inner end portion of the tongue and slidably underlying the top.

In testimony whereof I have hereunto affixed my signature.

WILLIS H. TRUMBULL.